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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,753	03/29/2000	GIDEON AMIR	UDL	2882

7590

10/08/2003

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EXAMINER

RAHIMI, IRAJ A

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 10/08/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/509,753

Applicant(s)

AMIR ET AL.

Examiner

(Iraj) Alan Rahimi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-12 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. Abstract of the disclosure is missing. Applicant is reminded of the proper content of an abstract of the disclosure as outlined below for formation of an abstract.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is required to provide an abstract of the disclosure.

2. The English version of the priority document PCT/IL/97/00319 09/30/1997 is missing. This document is needed to establish priority.

### ***Claim Objections***

3. Claims 7 and 11 are objected to because of the following informalities: Claims do not establish dependency to any one of the preceding claims. It is suggested to the say "...according to any one of the preceding claims..." Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Liguori (US patent 5,912,672).

Regarding claim 1, Ligouri discloses a page composition method for composing a page from elements in a continuous tone pixelized form or in a bit-mapped form for printing comprising:

- (a) determining the positions of the elements on a printed page (column 5, lines 27-34);
- (b) dividing the page into bands (Fig. 2);
- (c) serially transferring pixel data values for sections of bands corresponding to the

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portions of respective elements in a band, to a buffer memory, wherein the data from the portion of one element in a band is completely read prior to reading data corresponding to the portion of a second element in the band (column 9, lines 1-5);

(d) writing the data to a buffer memory as it is read (column 9, lines 1-5); and

(e) transferring the data from the buffer memory when all the data corresponding to all portions of all elements in the band is written in the buffer memory (column 9, lines 6-7).

Regarding claim 8, Liguori discloses a page composition method according to any of the claims wherein after all of the data corresponding to a given band to a buffer memory is completed, (c) - (e) are repeated for a second band (column 3, lines 55-56).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori (US patent 5,912,672).

Regarding claim 2, Liguori discloses a page composition method according to claim 1 wherein certain of the pixel values in certain elements are indicated as being transparent and wherein no data is written into the buffer memory for such pixel values (column 4, lines 57-64).

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Liguori states that if object is active and opaque, output color is stored. Inversely, it would have been obvious to a person skilled in the art, at the time of invention to conclude that for transparent object output color is not stored.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori (US patent 5,912,672) in view of Scarpetti (US patent 5,764,248).

Regarding claim 6, Liguori does not disclose a page composition method according to claim 5 wherein the combination of data is a weighted average of the pixel values in the upper and lower layers. Scarpetti discloses using weighted average of pixels to replace two or more adjacent pixels. Liguori and Scarpetti are analogous art because they are from the same field of endeavor that is image processing in a printing environment. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to use weighted averaging of Scarpetti in Liguori invention to reduce pixel density.

9. Claims 7 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liguori (US patent 5,912,672) in view of Morikawa et al. (US patent 5,136,688).

Regarding claim 7, Morikawa discloses page composition method according to any of the preceding claims wherein after transfer of data, corresponding to a band, to a buffer memory is completed, the data is transformed into bit mapped form suitable for printing (column 2, lines 26-29). Dot image is same as halftone image or bitmap image. Liguori and Morikawa are

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analogous art because they are from the same field of endeavor that is data processing for image forming apparatus by dividing the image data in units of bands. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to use the dot image of the Morikawa to output to printer to speed up printing from a band memory by having the data printer ready.

Regarding claim 9, Morikawa et al. discloses a page composition system according to claim 8 wherein the data for the second band is transferred into a second buffer memory (column 2, lines 8-25).

Regarding claim 10, Morikawa discloses a page composition method according to claim 9 wherein the data corresponding to the second band is transformed into bit mapped form suitable for printing after data for the first band is so transformed (column 2, lines 26-29). Dot image is same as halftone image or bitmap image.

Regarding claim 11, Morikawa discloses a page composition method according to any of the claims 1-6 and including zeroing the pixel values in a buffer memory after data from the memory is transferred therefrom. As indicate in column 2, lines 8-25, once the first band memory transfers data to the second band memory, its content is cleared or zeroed in order to be able to accept data for the next band.

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Regarding claim 12, Morikawa discloses a page composition method according to claim 11 and including repeating (c)-(e) for an additional band, wherein said data is written into a buffer memory into which data for another band was written previously after such data is transferred therefrom (column 2, lines 8-25).

***Allowable Subject Matter***

10. Claims 3-5 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art or the prior art of record does not teach or suggest portions of the elements in the band are transferred to the buffer memory in an order which corresponds to the determined layer of the overlapping elements.

***Other Prior Art Cited***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carlsen (US patent 6,466,210) discloses blending image data using layers.

Soker (US patent 5,946,451) discloses a method for generating contone map.

Silverbrook (US patent 5,428,724) discloses a method for providing transparency in an object based rasterized image.

Onodera (US patent 6,181,435) discloses a printer converting PDL language into coded band data as a set of objects.



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***Contact Information***

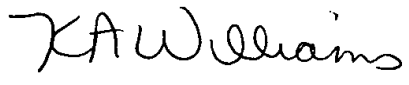
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473.

The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

  
Alan Rahimi  
September 26, 2003

  
**KIMBERLY WILLIAMS**  
**SUPERVISORY PATENT EXAMINER**  
for  
Ed Coles